Case Report

Received: September 22, 1995

Accepted: October 16, 1995

Gynecol Obstet Invest 1996;41:284-285

Ultrasonographic Appearance of Non-Hodgkin's Lymphoma in a Pregnant Woman

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Key Words

Non-Hodgkin's lymphoma
Pregnancy
Ultrasound

Abstract

Non-Hodgkin's lymphoma during pregnancy is rare. We report a case of non-Hodgkin's lymphoma detected in a pregnant woman. She was initially diagnosed as having an ovarian tumor by ultrasonography, but definitive diagnosis was made at the time of cesarean section. After delivery she took combined chemotherapy for 7 cycles and is in complete remission over 1 year.

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Introduction

The occurrence of non-Hodgkin's lymphoma (NHL) during pregnancy is rare since it does occasionally affect women in the childbearing age and only 35 cases have been reported until 1991 [1]. The diagnosis of NHL during pregnancy may often be difficult because its symptoms may be masked by the pregnancy.

We here describe a pregnant woman with NHL and its ultrasonographic appearance, which was initially determined to be an ovarian neoplasm.

Case Report

A 33-year-old, gravida 6, para 4 woman was admitted to our hospital on June 2, 1994, because of swelling, tenderness and pain in the left leg at estimated 34 weeks of gestation. Physical examination revealed a solid mass in the left inguinal area and signs of thrombophlebitis in the left leg. There was no other abnormality on general examination and laboratory evaluation was normal. Her past medical history was unremarkable. Transabdominal ultrasonography showed a single, viable and well-developed fetus. A complex mass that was predominantly solid was also seen in the left adnexal region

and it was determined as an ovarian neoplasm (fig. 1). The evaluation of this mass was deferred to the postpartum period. Bed rest, elevation of the leg and heparin treatment were started and the patient's clinical course and laboratory data were closely monitored. At 36 week' gestation the fetal membranes prematurely ruptured spontaneously and it was decided to deliver by cesarean section. After performing a median skin incision, the baby was delivered through a low segment uterine incision. The patient gave birth to a healthy, male baby weighing 2,880 g with

Apgar scores of 8 and 9 at first and fifth minutes, respectively. After closing the uterine wound, the abdomen and pelvic cavity were observed and both adnexal regions were found to be normal. But multiple solid masses in the retroperitoneal area were felt and a gynecologic oncologist was invited to the operation theater. Dissection of the retroperitoneum revealed multiple solid masses throughout abdominal aorta, common iliac artery and obturator fossa. A mass was removed and sent for frozen section examination which revealed hyperplastic lymphoid tissue. The liver, spleen, stomach and intestines appeared quite normal and the operation was completed. The baby did well in the nursery, but the mother's postoperative course was again complicated by thrombophlebitis. The paraffin section of the specimens revealed malignant lymphoma (fig. 2). In the postoperative period, laboratory studies, chest X-ray, thoracic and abdominal CT and bone marrow biopsy were carried out and the patient was considered as clinical stage III NHL. Treatment with cyclophosphamide, doxorubicin, Oncovin and prednisone (CHOP) was initiated. The patient is currently in remission over 1 year after having completed 7 courses of therapy.

KAKGEK

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Fig. 1. A complex mass which is predominantly solid in the left adnexal region.

Fig. 2. Section from para-aortic lymph node showing atypical lymphoid cells growing in a diffuse pattern. HE. $\times 81$.

Conclusion

Maternal malignancy during pregnancy occurs in approximately 0.03-0.07% of pregnancies [1] and NHL in association with pregnancy is even rarer. Therefore, the experience in the diagnosis and management of pregnancies complicated by NHL is quite limited. Many reported cases of NHL occurred several decades ago and the outcomes were generally poor [2]. Reluctance of physicians to perform radiological studies and invasive procedures in pregnant women cause a delay in the diagnosis and treatment of patients with NHL. There has also been apprehension about the use of cytotoxic drugs or radiotherapy in pregnant women with a neoplasm because of possible teratogenic effects. But recently a number of reports have increasingly documented the delivery of normal infants to mothers with NHL who received aggressive chemotherapy or radiotherapy [1-3]. However, the possible harm of these treatments to the unborn fetus is still of great concern. It mostly causes a delayed aggressive therapy and this can jeopardize the patient's life and health.

It is currently recommended that if the disease is detected in the early stages of pregnancy, even in the first trimester, immediate initiation of chemotherapy is crucial for the survival of mother and child [3]. If NHL is diagnosed close to full term, during the last month of pregnancy, one could wait for delivery in order to avoid possible complications of aggressive chemotherapy and in this instance treatment should be started immediately after delivery. On the other hand, in cases of high-grade lymphomas such as Burkitt lymphoma, delaying the therapy may not be wise and treatment should be started earlier.

The case presented here was initially diagnosed as an ovarian neoplasm by ultrasonography at 34 weeks of pregnancy and definitive diagnosis was made during the cesar-ean section. After delivery, chemotherapy was started and she is in complete remission over 1 year. We report this case because of its rarity and its ultrasonographic appearance simulating an ovarian tumor.

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Non-Hodgkin's Lymphoma during Pregnancy

Gynecol Obstet Invest 1996;41:284-285

285